

Application No.: 10/537,297Docket No.: 4590-394**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended): An accelerometer micromachined in a plane plate having a base, comprising:

a measurement cell including a moveable seismic mass connected to the base and capable of moving translationally along a sensitive Oy axis;

of the accelerometer under the effect of an acceleration γ along this Oy axis, a resonator cell comprising a resonator that can vibrate and be subjected to a tensile or compressive force depending on the direction of acceleration γ and is placed symmetrically with respect to an axis of symmetry S of [[the] a structure, [[this]] the axis S being parallel to the Oy axis and passing through the center of gravity of the seismic mass;

the measurement cell furthermore including amplification means for amplifying an [[the]] acceleration force that generates the translation, which [[means]] include an anchoring foot for anchoring to the base, two rigid terminations of the resonator cell and two pairs of micromachined arms, the pairs of arms being symmetrical with respect to the axis S, each pair comprising a first arm connecting a first point of attachment to a termination and a second point of attachment to the seismic mass, and a second arm connecting a third point of attachment to the same termination and a fourth point of attachment to the anchoring foot, an [[the]] angle α between an [[the]] Ox axis perpendicular to the Oy axis and the line joining the first and second points of attachment being symmetrical with respect to the axis connecting the terminations via mid-points of the first and second arms their mid-point, of the angle between the Ox axis and the line joining the third and fourth points of attachment and sufficiently small for the tensile or compressive force exerted on the resonator to be greater than the acceleration force exerted on the seismic mass, wherein the resonator cell comprises two rigid embedding elements for embedding the ends of the resonator and two pairs of secondary micromachined arms, [[these]] the secondary pairs of arms being symmetrical with respect to the axis S, each pair comprising a

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first secondary arm connecting a first point of attachment to an embedding element and a second point of attachment to a termination of the cell, and a second secondary arm connecting a third point of attachment to the other embedding element and a fourth point of attachment to the same termination of the cell, an [[the]] angle β between the Oy axis and the line joining the first and second points of attachment being symmetrical with respect to the axis passing through the mid-points of the embedding elements, of the angle between the Oy axis and the line joining the third and fourth points of attachment and low enough for the tensile or compressive force exerted on the resonator to be greater than the acceleration force exerted on the seismic mass.

2. (previously presented): The accelerometer as claimed in claim 1, wherein the pairs of arms are straight or curved.

3. (currently amended): The accelerometer as claimed in claim 1, wherein the first point of attachment of the first arm is located further away from the axis of symmetry S than [[its]] the second point of attachment of the first arm.

4. (currently amended): The accelerometer as claimed in claim 1 wherein the first point of attachment of the first arm is located closer to the axis of symmetry S than [[its]] the second point of attachment of the first arm.

Claim 5 (cancelled).

6. (previously presented): The accelerometer as claimed in claim 1, wherein the seismic mass surrounds the amplification means.

7. (currently amended): The accelerometer as claimed in claim 1, wherein the first and second arms have a thickness that can vary along [[their]] a length thereof.

8. (currently amended): The accelerometer as claimed in claim 1, wherein [[it]] the accelerometer furthermore includes guiding arms for guiding the seismic mass, [[which]] wherein the guiding arms lie along the Ox axis and are connected to a part fixed to the base.

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9. (currently amended): The accelerometer as claimed in claim 1, wherein ~~it comprises~~ comprising two measurement cells placed with respect to each other in such a way that, under the effect of an acceleration, the resonator of one measurement cell undergoes a tensile force while the resonator of the other measurement cell undergoes a compressive force.

10. (previously presented): The accelerometer as claimed in claim 9, wherein the two measurement cells have a common seismic mass.

11. (currently amended): The accelerometer as claimed in claim 9, wherein the pairs of arms are placed in the same way for each of the measurement cells.

12. (currently amended): The accelerometer as claimed in claim 9, wherein the pairs of arms are not placed in the same way for each of the measurement cells.

13. (previously presented): The accelerometer as claimed in claim 1, wherein the resonator comprises a vibrating beam, or two vibrating beams forming a tuning fork, or at least three vibrating beams or a torsion bar.

14. (currently amended): The accelerometer as claimed in claim 2, wherein the first point of attachment of the first arm is located further away from the axis of symmetry S than [[its]] the second point of attachment of the first arm.

15. (currently amended): The accelerometer as claimed in claim 2, wherein the first point of attachment of the first arm is located closer to the axis of symmetry S than [[its]] the second point of attachment of the first arm.

16. (currently amended): The accelerometer as claimed in claim 3, ~~wherein it furthermore~~ ~~[[includes]]~~ including guiding arms for guiding the seismic mass, ~~[[which]]~~ wherein the guiding arms lie along the Ox axis and are connected to a part fixed to the base.

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17. (currently amended): The accelerometer as claimed in claim 4, wherein it comprises comprising two measurement cells placed with respect to each other in such a way that, under the effect of an acceleration, the resonator of one measurement cell undergoes a tensile force while the resonator of the other measurement cell undergoes a compressive force.

18. (currently amended): The accelerometer as claimed in claim 10, wherein the pairs of arms are placed in the same way for each of the measurement cells.

19. (currently amended): The accelerometer as claimed in claim 10, wherein the pairs of arms are not placed in the same way for each of the measurement cells.

20. (original): The accelerometer as claimed in claim 9, wherein the resonator comprises a vibrating beam, or two vibrating beams forming a tuning fork, or at least three vibrating beams or a torsion bar.